Third United Nations International Conference on the Peaceful Uses of Atomic Energy

A/CONF.28/A/34
FRANCE
February 1964
Original: FRENCH

Confidential until official release during Conference

Abstract

SOME GENERAL REMARKS CONCERNING THE EXPERIMENTAL DEVICES AND MEANS FOR FLUX MEASUREMENTS USED IN THE RESEARCH REACTORS OF THE C. E. A.

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First, the authors define the operation and organisation lay-out of the research reactors. This out lay is then used as a basis for an examination of the conception, realisation and exploitation of irradiation devices. They then analyse the different operations carried out in placing an irradiation device in the reactor. They point out that the time necessary for decision of construction, conception, for material provision, for construction, out-of-pile tests and security examination is in general longer than the irradiation time. To minimize this time they advise a closer collaboration between the personel of the experimentation laboratory and the reactor personel for the conception of the design. They think it would be preferable to construct the prototypes in the research centre and leave the fabrication of small series to the industry. The methods used for the in-pile operation of the device are also indicated.

Considering the evolution of the construction technics they mention that the requirements for the irradiation conditions are put higher and higher (reactor stability and homogeneity).

Also described are the performances of the main irradiation devices in operation in research reactor in the C. E. A.

Translation provided by courtesy of the submitting Government